



SEQUENCE LISTING

<10> Bowdish, Katherine S.
Frederickson, Shana
Lin, Ying-Chi
Renshaw, Mark
Wild, Martha
McWhirter, John

<120> ENGINEERED PLASMIDS AND THEIR USE FOR IN SITU PRODUCTION OF GENES

<130> 1087-3

<140> 10/006,591

<141> 2001-12-05

<150> 60/251,440

<151> 2000-12-05

<160> 14

<170> PatentIn version 3.1

<210> 1

<211> 6122

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: vector

<400> 1
gggaaattgt aagcgtaat attttgtta aattcgcgtt aaattttgt taaatcagct 60
catttttaa ccaataggcc gaaatcgga aaatccctta taaatcaaaa gaatagaccg 120
agatagggtt gagtggtt ccagttgg acaagagtcc actattaaag aacgtggact 180
ccaaacgtcaa agggcgaaaa accgtctatc agggcgatgg cccactacgt gaaccatcac 240
cctaatacag tttttgggg tcgaggtgcc gttaagcact aaatcggaac cctaaaggga 300
gcccccgatt tagagttga cggggaaagc cggcgaacgt ggcgagaaag gaagggaga 360
aagcgaaagg agcgggcgct agggcgctgg caagtgttagc ggtcacgctg cgctaaacca 420
ccacacccgc cgcgcttaat gcgcgcgtac agggcggttc aggtggcaact ttccggggaa 480
atgtgcgcgg aacccttattt tgtttatttt tctaaataca ttcaaataatg tatccgctca 540
tgagacaata accctgataa atgcttcaat aatattgaaa aaggaagagt atgagtattc 600
aacatttccg tgtcgcctt attccctttt ttgcggcatt ttgccttcct gttttgctc 660
acccagaaac gctggtgaaa gtaaaagatg ctgaagatca gttgggtgca cgagtgggtt 720
acatcgaact ggatctcaac agcggtaaga tccttgagag tttcgc(cc) gaagaacgtt 780

ttccaatgat gagcacttt cgaccgaata aataccgtg acggaagatc acttcgcaga	840
ataaataaat cctggtgtcc ctgttgatac cgggaagccc tgggccaact tttggcgaaa	900
atgagacgtt gatcggcacg taagaggttc caactttcac cataatgaaa taagatcact	960
accggcgta tttttgagt tgtcgagatt ttcaggagct aaggaagcta aaatggagaa	1020
aaaaatcaact ggatatacca ccgttgatat atcccaatgg catcgtaaag aacatttga	1080
ggcatttcag tcagttgctc aatgtaccta taaccagacc gttcagctgg atattacggc	1140
cttttaaag accgtaaaga aaaataagca caagtttat ccggccttta ttcacattct	1200
tgccgcctg atgaatgctc atccggaatt acgtatggca atgaaagacg gtgagctggt	1260
gatatggat agtggtcacc cttgttacac cggtttccat gagcaaactg aaacgtttc	1320
atcgctctgg agtgaataacc acgacgattt cggcgagttt ctacacatat attcgcaaga	1380
tgtggcgtgt tacggtgaaa acctggccta tttccctaaa gggtttattt agaatatgtt	1440
tttcgtctca gccaatccct gggtagttt caccagttt gattaaacg tggcaatat	1500
ggacaacttc ttccgcggccg tttcaccat gggcaaataat tatacgcaag gcgacaaggt	1560
gctgatgccg ctggcgattc agttcatca tgccgttgc gatggcttcc atgtcggcag	1620
aatgcttaat gaattacaac agtactgcga tgagtggcag ggcggggcgt aatttttta	1680
aggcagttat tggtgccctt aaacgcctgg ttgctacgcc tgaataagtg ataataagcg	1740
gatgaatggc agaaattcga aagcaaattc gaccggcgtc tcggttcagg gcagggtcgt	1800
taaatagccg cttatgtcta ttgctggttt accggtttat tgactaccgg aagcagtgt	1860
accgtgtgct tctcaaatgc ctgaggccag tttgctcagg ctctccccgt ggaggtaata	1920
attgacgata tgatcctttt tttctgatca aaaaggatct aggtgaagat ctttttgat	1980
aatctcatga ccaaaatccc ttaacgtgag tttcggtcc actgagcgtc agaccccgta	2040
aaaaagatca aaggatcttc ttgagatcct tttttctgc gcgtaatctg ctgcttgcaa	2100
acaaaaaaaaac caccgctacc agcggtggtt tgtttgcgg atcaagagct accaactctt	2160
tttccgaagg taactggctt cagcagagcg cagataccaa atactgtcct tctagtgtag	2220
ccgtagttag gccaccactt caagaactct gtgcgtccgc ctacataccct cgctctgcta	2280
atccctgttac cagtggctgc tgccagtggc gataagtcgt gtcttaccgg gttggactca	2340
agacgatagt taccggataa ggcgcagcgg tcgggctgaa cggggggttc gtgcacacag	2400
cccagcttgg agcgaacgac ctacaccgaa ctgagatacc tacagcgtga gctatgagaa	2460

agcgccacgc ttcccgaagg gagaaaggcg gacaggatc cggttaagcg cagggtcgga	2520
acaggagagc gcacgaggga gcttccaggg ggaaacgcct ggtatctta tagtcctgtc	2580
gggttgcac acctctgact tgagcgtcga tttttgtat gtcgtcagg gggcgagc	2640
ctatggaaaa acgccagcaa cgccgcctt ttacggttcc tggcctttt ctggccttt	2700
gctcacatgt tcttcctgc gttatccccattt gattctgtgg ataaccgtat taccgccttt	2760
gagttagctg ataccgctcg ccgcagccga acgaccgagc gcagcgagtc agtgagcgag	2820
gaagcggaaag agcgccaaat acgcaaaccg cctctcccg cgcgttggcc gattcattaa	2880
tgcagctggc acgacaggtt tcccgactgg aaagcggca gtgagcgcaa cgcaattaat	2940
gtgagtttagc tcactcatta ggcaccccg gctttacact ttatgcttcc ggctcgat	3000
tttgtggaa ttgtgagcgg ataacaattt aattcaggag gaatttaaaa tgaaaaagac	3060
agctatcgcg attgcagtgg cactggctgg tttcgctacc gtggcccagg cggccgagct	3120
cgactgcact ggatggtggc gctggatggt aagccgctgg caagcggta agtgcctctg	3180
gatgtcgctc cacaaggtaa acagttgatt gaactgcctg aactaccgca gccggagagc	3240
gccgggcaac tctggctcac agtacgcgta gtgcaaccga acgcgaccgc atggtcagaa	3300
gccgggcaca tcagcgctg gcagcagtgg cgtctggcgaaaaccttag tgcacgctc	3360
cccgccgcgt cccacgccc accaccatctg accaccagcg aaatggatt ttgcacgcg	3420
ctggtaata agcggtggca atttaaccgc cagtcaggct ttcttcaca gatgtggatt	3480
ggcgataaaa aacaactgct gacgcccgtg cgcatcgat tcacccgtgc accgctggat	3540
aacgacatttgcgta agcgacccgc attgacccta acgcctgggt cgaacgctgg	3600
aaggcggcgg gccattacca gcccgaagca gcgttggc agtgcacggc agatacactt	3660
gctgatgcgg tgctgattac gaccgctcac gcgtggcagc atcaggggaa aaccttattt	3720
atcagccgga aaacctaccg gattgatggt agtggtaaaa tggcgattac cggtatgtt	3780
gaagtggcga gcgatacacc gcatccggcg cggattggcc tgaactgcca gctggcgcag	3840
gtacgagac gggtaaactg gctcgattt gggccgcaag aaaactatcc cgaccgcctt	3900
actgcccgcct gttttgaccg ctggatctg ccattgtcag acatgtatac tggctgcacc	3960
atctgtcttc atcttcccgc catctgatga gcagttgaaa tctggtaactg cctctgttgt	4020
gtgcctgctg aataacttct atcccagaga ggccaaagta cagtggaaagg tggataacgc	4080
cctccaaatcg ggttaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta	4140
cagcctcagc agcaccctga cgctgagcaa agcagactac gagaacaca aagtatatgc	4200

ctgcgaagtc acccatcagg gcctgagctt gcccgtcaca aagagttca acaggggaga	4260
gtgttagttc tagataatta attaggagga atttaaaatg aaatacctat tgcctacggc	4320
agccgctgga ttgttattac tcgctgccc accagccatg gccctcgagc tgatgagcca	4380
tggaagctgt gtcgcctgca ccaggctccc acggctcgtg gtgcggtgcg cttctggtgt	4440
tcgctgccta cagccgacac gtcgagcttc gtgcccctag agttgcgcgt cacagcagcc	4500
tccggcgctc cgcgatatac ccgtgtcatc cacatcaatg aagttagtgc cctagacgcc	4560
cccggtgggc tgggtggcgcg gttggctgac gagagcggcc acgttagtgtt gcgctggctc	4620
ccgcccgcctg agacacccat gacgtctcac atccgctacg aggtggacgt ctcggccggc	4680
aacggcgcag ggagcgtaca gagggtggag atcctggagg gccgcaccga gtgtgtgctg	4740
agcaaacctgc ggggccccggac gcgctacacc ttgcgcgtcc gcgcgctat ggctgagccg	4800
agcttcggcg gcttctggag cgccctggctg gagcctgtgt cgctgctgac gcctagcgcac	4860
ctggacccccc tcatcctgac gctctccctc atcctcgtgg tcatcctggt gctgctgacc	4920
tggtcgccgc tgctctccca ccgcggggct ctgaagcaga agatctggcc tggcatcccg	4980
agcccaaaaa gcgagttga aggcccttc accacccaca agggtaactt ccagctgtgg	5040
ctgtaccaga atgatggctg cctgtggtg agccctgca ccccttcac ggaggaccca	5100
cctgcttccc tggaaagtccct ctcagagcgc tgctggggga cgatgcaggc agtggagccg	5160
gggacagatg atgagggccc atcggtcttc cccctggcac cctcctccaa gacacactct	5220
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg	5280
tcgtggaact caggccctt gaccagcggc gtgcacacct tcccgctgt cctacagtcc	5340
tcaggactct actccctcag cagcgtggtg accgtccct ccagcagctt gggcacccag	5400
acctacatct gcaacgtcaa tcacaagccc agcaacacca aggtggacaa gaaagttgag	5460
cccaaatctt gtgacaaaac tagtggccag gccggccagc accatcacca tcaccatggc	5520
gcataccctgt acgacgttcc ggactacgct tcttaggagg gtggtggtc tgagggtggc	5580
ggttctgagg gtggcggtc tgagggaggg ggttccggtg gtggctctgg ttccgggtat	5640
tttgattatg aaaagatggc aaacgcta at aaggggct a tgaccgaaaa tgccgatgaa	5700
aacgcgctac agtctgacgc taaaggcaaa cttgattctg tcgctactga ttacggtgct	5760
gctatcgatg gttcattgg tgacgttcc ggccttgcta atggtaatgg tgctactgg	5820
gatttgctg gctctaattc ccaaattggct caagtcggtg acggtgataa ttcacccctta	5880

atgaataaatt	tccgtcaata	tttaccttcc	ctccctcaat	cggttgaatg	tcgcctttt	5940
gtcttagcg	ctggtaaacc	atatgaattt	tctattgatt	gtgacaaaat	aaacttattc	6000
cgttgtgtct	ttgcgtttct	tttatatgtt	gccaccctta	tgtatgtatt	ttctacgttt	6060
gctaacatac	tgcgtaataa	ggagtcttaa	gctagcta	taatttaagc	ggccgcagat	6120
ct						6122

<210> 2
<211> 6122
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: vector

<400> 2	cccttaaca	ttcgcaatta	taaaacaatt	ttaagcgcaa	tttaaaaaca	atttagtcga	60
gtaaaaaatt	ggttatccgg	cttagccgt	tttaggaaat	atttagttt	cttatctggc		120
tctatccaa	ctcacaaacaa	ggtaaacacct	tgttctcagg	tgataatttc	ttgcacctga		180
ggttgcagtt	tcccgtttt	tggcagatag	tcccgtacc	gggtgatgca	cttggtagtg		240
ggatttagttc	aaaaaacc	agctccacgg	catttcgtga	tttagccttg	ggattccct		300
cggggctaa	atctcgaaact	gccctttcg	gccgcttgca	ccgcttttc	cttcccttct		360
ttcgctttcc	tcgcccgcga	tcccgcgacc	gttcacatcg	ccagtgcgac	gcgcattgg		420
ggtgtggcg	gcgcgaatta	cgcggcgatg	tcccgcgcag	tccaccgtga	aaagccccctt		480
tacacgcgcc	ttggggataa	acaaataaaa	agatttatgt	aagtttatac	ataggcgagt		540
actctgttat	tgggactatt	tacgaagtta	ttataacttt	ttccttctca	tactcataag		600
ttgtaaaggc	acagcgggaa	taagggaaaa	aacgccgtaa	aacggaagga	caaaaacgag		660
tgggtctttg	cgaccacttt	catttctac	gacttctagt	caacccacgt	gctcacccaa		720
tgtagcttga	cctagagttg	tcgccattct	aggaactctc	aaaagcgggg	cttcttgcaa		780
aaggttacta	ctcgtaaaa	gctggcttat	ttatggacac	tgccttctag	tgaagcgtct		840
tatttattta	ggaccacagg	gacaactatg	gcccttcggg	acccgggttga	aaaccgcttt		900
tactctgcaa	ctagccgtgc	attctccaag	gttgaardtg	gtattacttt	attctagtga		960
tggccgcatt	aaaaaactca	acagctctaa	aagtcctcga	ttccttcgat	tttacctctt		1020
tttttagtga	cctatatggt	ggcaactata	tagggttacc	gtagcatttc	ttgtaaaact		1080
ccgtaaagtc	agtcaacgag	ttacatggat	attggcttgg	caagtcgacc	tataatgccg		1140

gaaaaatttc tggcatttct ttttattcgt gttcaaaata ggccggaaat aagtgtaaa	1200
acgggcggac tacttacgag taggccttaa tgcataccgt tactttctgc cactcgacca	1260
ctatacccta tcacaagtgg gaacaatgtg gcaaaaggta ctcgtttgcac tttgcaaaag	1320
tagcgagacc tcacttatgg tgctgctaaa ggccgtcaaa gatgtgtata taagcggtct	1380
acaccgcaca atgccacttt tggaccggat aaagggattt cccaaataac tcttatacaa	1440
aaagcagagt cggttaggga cccactcaaa gtggtcaaaa ctaaatttgc accggttata	1500
cctgttgaag aagcgggggc aaaagtggta cccgttata atatgcgttc cgctgttcca	1560
cgactacggc gaccgctaaag tccaagtagt acggcaaaca ctaccgaagg tacagccgtc	1620
ttacgaatta cttaatgttg tcatgacgct actcaccgtc ccgcggcgc ttaaaaaaat	1680
tccgtcaata accacggaa ttgcggacc aacgatgcgg acttattcac tattattcgc	1740
ctacttaccg tcttaagct ttgcgttaag ctggggcagc agccaagtcc cgtcccagca	1800
atttatcggc gaatacagat aacgaccaaa tggccaaata actgatggcc ttgcgtcacac	1860
tggcacacga agagtttacg gactccggtc aaacgagtcc gagaggggca cctccattat	1920
taactgctat actaggaaaa aaagactagt tttcctaga tccacttcta ggaaaaacta	1980
ttagagtact ggttttaggg aattgcactc aaaagcaagg tgactcgca gtcgggcat	2040
cttttctagt ttccctagaag aactctagga aaaaagacg cgcattagac gacgaacgtt	2100
tgttttttg gtggcgatgg tcgccaccaa acaaacggcc tagttctcgat tggttgagaa	2160
aaaggcttcc attgaccgaa gtcgtctcg gtctatggtt tatgacagga agatcacatc	2220
ggcatcaatc cggtggtgaa gttcttgaga catcggtggcg gatgtatggat gcgagacgat	2280
taggacaatg gtcaccgacg acggtcacccg ctattcagca cagaatggcc caacctgagt	2340
tctgctatca atggcctatt ccgcgtcgcc agcccgactt gcccccaag cacgtgtgtc	2400
gggtcgaacc tcgcttgctg gatgtggctt gactctatgg atgtcgcaact cgataactctt	2460
tcgcgggtcg aagggttcc ctcttccgc ctgtccatag gccattcgcc gtcccagcct	2520
tgtcctctcg cgtgctccct cgaagggtccc cctttgcggaa ccatagaaaat atcaggacag	2580
cccaaagcgg tggagactga actcgacgt aaaaacacta cgagcagtcc ccccgccctcg	2640
gataccttt tgcggtcgtt gcccggaaa aatgccaagg accggaaaac gaccggaaaa	2700
cgagtgtaca agaaaggacg caataggggaa ctaagacacc tattggcata atggcggaaa	2760
ctcaactcgac tatggcgagc ggcgtcggtc tgctggctcg cgtcgctcag tcactcgctc	2820

cttcgccttc tcgcgggtta tgcgtttggc ggagaggggc gcgcaaccgg ctaagtaatt	2880
acgtcgaccg tgctgtccaa agggctgacc ttgcggccgt cactcgcggt gcgttaatta	2940
cactcaatcg agtgagtaat ccgtggggtc cgaaatgtga aatacgaagg ccgagcatac	3000
aacacacctt aacactcgcc tattgttaac ttaagtccctc cttaaatttt acttttctg	3060
tcgatagcgc taacgtcacc gtgaccgacc aaagcgatgg caccgggtcc gccggctcga	3120
gctgacgtga cctaccacccg cgacacctacca ttgcggcacc gttcgccact tcacggagac	3180
ctacagcgag gtgttccatt tgtcaactaa cttgacggac ttgatggcgt cggcctctcg	3240
cggcccggtt agaccgagtg tcatgcgcac cacgtggct tgcgctggcg taccagtctt	3300
cggcccggtt agtcgcccac cgctcgaccgc gcagaccgcc ttttggagtc acactgcgag	3360
gggcggcgca gggtgccgtt gggcgtagac tggtggtcgc tttacctaaa aacgtagctc	3420
gaccattat tcgcaaccgt taaattggcg gtcagtcga aagaaagtgt ctacacctaa	3480
ccgctatttt ttgttgcgacgacgacgctacta agtgggcacg tggcgaccta	3540
ttgctgttaac cgcatttcact tcgctggcg taactggat tgcggaccac gcttgcgacc	3600
ttccggccgc cggtaatggc cggcttcgt cgcaacaacg tcacgtgccg tctatgtgaa	3660
cgactacgccc acgactaatg ctggcgagtg cgacccgtcg tagtcccctt ttgaaataaa	3720
tagtcggcct tttggatggc ctaactacca tcaccagttt accgctaattt gcaactacaa	3780
cttcaccgct cgctatgtgg cgtaggccgc gcctaaccgg acttgacggt cgaccgcgtc	3840
catcgctcg cccatttgac cgagcctaattt cccggcggtt ttttgatagg gctggcgaa	3900
tgacggcgga caaaaactggc gaccctagac ggtaacagtc tgtacatatg accgacgtgg	3960
tagacagaag tagaaggcg gtagactact cgtcaactttt agaccttgac ggagacaaca	4020
cacggacgac ttattgaaga tagggctctt ccggtttcat gtcacccctt acctattgcg	4080
ggaggttagc ccattgaggg tcctctcaca gtgtctcgac ctgtcggttcc tgctgtggat	4140
gtcggagtcg tcgtggact gcgactcggt tcgtctgtatg ctctttgtgt ttcatatacg	4200
gacgcttcag tggtagtcc cgactcgaa cggcagtggtt ttctcgaagt tgtccctct	4260
cacaatcaag atctattaat taatccctcct taaattttac tttatggata acggatgccc	4320
tcggcgaccc aacaataatg agcgacgggt tggtcggtac cgggagctcg actactcggt	4380
accttcgaca cagcggacgt ggtccgaggg tgccgagcac cacgccacgc gaagaccaca	4440
agcgcacggat gtcggctgtg cagctcgaaag cacggggatc tcaacgcgcac gtgtcggttcc	4500
aggccgcgag gcgctatagt ggcacagtagt gtgttagttac ttcatcacga ggatctgcgg	4560

gggcaccccg accaccgcgc caaccgactg ctctgccgg tgcatacaca	4620
ggcggcggac tctgtggta ctgcagagt taggcatgc tccacctgca gagccggccg	4680
ttgccgcgtc ctcgcacatgt ctccccaccc tcggacactcc cgccgtggct cacacacgac	4740
tcgttggacg ccccgccctg cgcgatgtgg aagcggcagg cgccgcata ccgactcggc	4800
tcgaagccgc cgaagaccc tcggaccaga gcgacgactg cgatcgctg	4860
gacactgggg agtaggactg cgagagggag taggagcacc agtaggacca cgacgactgg	4920
cacgagcgcg acgagagggt ggccggccga gacttcgtct tctagaccgg accgttagggc	4980
tccgggtctct cgctcaaact tccggagaag tggtggtgt tcccattgaa ggtcgacacc	5040
gacatggtct tactaccgac ggacaccacc tcggggacgt ggggaagtg ctcctgggt	5100
ggacgaaggg accttcagga gagtctcgcg acgacccct gtacgtccg tcacctcggc	5160
ccctgtctac tactcccggt tagccagaag ggggaccgtg ggaggaggtt ctcgtggaga	5220
ccccctgtc gccgggaccc gacggaccag ttccctgatga aggggcttgg ccactgccac	5280
agcaccttga gtccgcggga ctggcgccg cacgtgtgga agggccgaca ggatgtcagg	5340
agtccctgaga tgagggagtc gtcgcaccac tggcacggga ggtcgatgaa cccgtgggtc	5400
tggatgtaga cgttgcactt agtgttcggg tcgttgggt tccacctgtt ctttcaactc	5460
gggtttagaa cactgtttt atcacccgtc cggccgggtcg tggtagtggt agtggtaccg	5520
cgtatggca tgctgcaagg cctgatgcga agaatccctc caccaccgag actccacccg	5580
ccaagactcc caccgcgag actccctccg ccaaggccac caccgagacc aaggccacta	5640
aaactaatac ttttctaccg tttgcgatta ttccccgat actggtttt acggctactt	5700
ttgcgcgatg tcagactgctg atttccgttt gaactaagac agcgatgact aatgccacga	5760
cgatagctac caaagtaacc actgcaaagg ccgaaacgt taccattacc acgtatgacca	5820
ctaaaacgac cgagattaag ggtttaccga gttcagccac tgccactatt aagtggaaat	5880
tacttattaa aggcagttat aaatggaagg gagggagttt gccaacttac agcggaaaaa	5940
cagaaatcgc gaccatttgg tatacttaaa agataactaa cactgtttt tttgaataag	6000
gcaccacaga aacgcaaaga aaatatacaa cggtggaaat acatacataa aagatgcaaa	6060
cgattgtatg acgcatttatt cctcagaatt cgatcgatattt attaaattcg ccggcgtcta	6120
ga	6122

```

<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: collar sequence

<220>
<221> misc_feature
<222> (16)..(16)
<223> n is c or t

<400> 3
gggtcatctg gatgtn                                16

<210> 4
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 4
attaacactc tccccctgtt aagctcttg tgacggcgaa actcaggccc      50

<210> 5
<211> 68
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: duplexing oligo

<220>
<221> misc_feature
<222> (2)..(2)
<223> n is a or g

<400> 5
cnacatccag atgaccggg cctgagttcg cccgtcacaa agagcttcaa caggggagag      60
tgttaatt                                68

<210> 6
<211> 76
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: duplexing oligo

```

```

<220>
<221> misc_feature
<222> (71)..(71)
<223> n is c or t

<400> 6
ctagaattaa cactctcccc tggtaagct ctttgacg ggcgaactca ggccgggtc      60
atctggatgt ngagt                                         76

<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: collar sequence

<220>
<221> misc_feature
<222> (15)..(15)
<223> n is c or a

<400> 7
gactgcacca gctgnacctg                                         20

<210> 8
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description for Artificial Sequence: primer

<400> 8
tttgtcacaa gatttggct ctgctttctt gtc                         33

<210> 9
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: duplexing oligo

<220>
<221> misc_feature
<222> (11)..(11)
<223> n is g or t

<400> 9

```

tcgagcagg t ncagctgg tg cagtcgacaa gaaaggcagag cccaaatctt gtgacaaaa 59

<210> 10
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: duplexing oligo

<220>
<221> misc_feature
<222> (53)..(53)
<223> n is a or c

<400> 10
ctagtttgt cacaagattt gggctctgct ttcttgtcga ctgcaccaggc tgnacctgc 59

<210> 11
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: restriction site on vector

<400> 11
ctcgag 6

<210> 12
<211> 7
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: restriction site on vector

<400> 12
aagatct 7

<210> 13
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: restriction site on vector

<400> 13
gagctc 6

<210> 14
<211> 6
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: restriction site on vector

<400> 14
tgatca

6